

Remarks

Claims 1-5 and 7-8 stand allowable if rewritten to overcome 35 U.S.C. 112 rejections. Claim 1 has been substantially amended in this regard and said claims 1-5 and 7-8 should be allowable as revised. Claim 16 has also been substantially amended and claims 18 and 24-29 canceled. Claims 1-5, 7-8, 16 and 20-21 remain in prosecution.

Claim Objections

All suggested modifications to claim 1 have been made.

Claim Rejections-35 U.S.C. 112

Claim 1 has been amended to conform with 35 U.S.C. 112, as suggested by the Examiner, so that all of claims 1-5 and 7-8 should conform to 35 U.S.C. 112.

Claim Rejections-35 U.S.C. 102

Claims 16, 18, 24-25 and 28-29 have been rejected as anticipated by Bates U.S. 6,220,748 ("Bates 2"). Claim 16 has been substantially amended and claims 18 and 24-29 have been canceled.

Bates teaches a test sensor. Fig. 1 appears to be mislabeled, compare with col. 1, ll 40-45:

"FIG. 1 illustrates a test probe 10 in accordance with an embodiment of the present invention. The probe 10 includes a reference sensor 20 and a test sensor 30 connected to one end of a conduit 38. An analyzer 40 is positioned at the opposite end of the conduit 38, and is electrically connected to the reference sensor 20 and test sensor 30."

One of the sensors 20 should be numbered 30, as more clearly shown in Fig. 2. Fig. 2 shows reference sensor 20, spaced far apart from test sensor 30 which test sensor, when immersed, would be filled with sample material.

Next, refer and compare Bates 2, Fig. 2 with applicants Fig. 7=claim 16.

Bates 2 teaches reference material 23 which may be solid liquid or gaseous. If solid it can include aluminum, stainless, refractory metal, ceramic, alumina or refractory. Even if plug 23 were stainless, contact with housing 21 would never be complete and cannot be reasonably considered a one-piece body/housing, as required in applicant's amended claim 16.

In any case, it is only surrounded by the metal comprising the test sensor and is sealed with separate cap 22. Also, note separate housing 21 having a chamber refractory fitting 25, collar 26, hollow support member 28, refractory fitting 35 and connecting collar 36.

Applicants submit that Bates 2 teaches a completely different, multi-piece, complicated non-one piece body, where the reference member has a required chamber for a reference material which can be a solid, liquid, or gas i.e. almost anything in the world including, perhaps, air. Applicants claim 16 has been substantially amended and has important limitations that must be considered, as the court stated in In re Boe and Duke, 184 U.S.P.Q. 38, 40 (1974 C.C.P.A.):

"This court has stated that all limitation must be considered and that it is error to ignore specific limitations distinguishing over the references. In re Saether, 181 U.S.P.Q. 36, 39 (1974 C.C.P.A.); In re Glass, 176 U.S.P.Q. 489,491 (1973 C.C.P.A.)."

Claim Rejections-35 U.S.C. 103

Claim 21 is rejected as obvious in view of Nakashima et al. U.S. 5,037,211.

Claims 20 and 26-27 are rejected as obvious in view of Bates 2 and Clark et al. U.S. 3,882,727. Claims 26 and 27 have been canceled.

While Nakashima may teach K-type thermocouples, (claim 21), and Clark et al. may teach sample removal (claim 20) and 304 L stainless may be a design choice, it adds nothing to the teachings of Bates 2 with regard to amended independent claim 16.

Allowable Subject Matter

Claims 1-5 and 7-8 have been held allowable if rewritten. Claim 1 has been substantially rewritten as previously stated, and should now be allowable as well as its dependent claims 2-5 and 7-8.

Examiners Response to Arguments

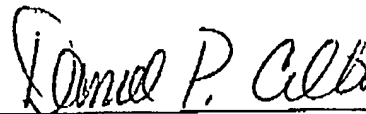
Specifically, at the Examiners note/suggestion that the term "comprising", previously used in applicants claim 16, has traditionally, especially in the chemical arts, had broad interpretation, such term as been deleted so that the claim as amended even more clearly establishes that the probe is "made of" only a one piece steel body with a sample and reference temperature sensor, and a communicating analyzer. If the Examiner has additional language suggestions in this regard applicants would favorably receive it.

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Summary

All outstanding issues are believed to have been addressed. In view of the foregoing amendments and arguments, applicants respectfully request entry of the amendment, stressing that no new issues or new matter has been introduced and that issues have been clarified and simplified, and now submit that claims 1-5, 7-8, 16 and 20-21 are in condition for allowance. Applicants respectfully request reconsideration and allowance of those claims. However, any suggestion by the Examiner as to deletion or modification of language to present allowable subject matter would be appreciated.

Respectfully submitted,



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